Electronic Version
Stylesheet Version v1.1.1

Claims

[c0001] 1. A method for providing a variable frequency clock for a SDRAM, comprising:
receiving a clock with a fixed frequency and a plurality of signals, wherein each said signal is an interlace combination of a plurality of high level signals and a plurality of low levels signals;
extracting a plurality of proper positions from said signals, wherein each low level of each said signal corresponds to a proper position; and
amending the frequency of said clock such that each said proper position corresponds to a rising edge of said clock.

[c0002] 2. The method of claim 1, wherein each said proper position is located at the center of corresponding said low level.

[c0003] 3. The method of claim 1, wherein each said proper position is located at a safety region around the center of corresponding said low level.

[c0004] 4. The method of claim 1, wherein each said proper position is located at a safety region inside corresponding

said low level.

[c0005] 5. The method of claim 1, wherein the step of amending the frequency of said clock is performed by the following steps chosen from the group consisting of the following: multiply frequency, divide frequency, mix said clock with at least one higher frequency clock, using doubled edges of the clock, using and the combination thereof.

[c0006] 6. A system for providing a variable frequency clock for a SDRAM, comprising:
a receiver for receiving a clock with a fixed frequency and a plurality of signals, wherein each said signal is an interlace combination of a plurality of high level signals and a plurality of low levels signals;
an extractor for extracting a plurality of proper positions from said signals, wherein each low level of each said signal corresponds to a proper position; and
an amender for amending the frequency of said clock such that each said proper position corresponds to a rising edge of said clock.

[c0007] 7. The system of claim 1, wherein said extractor locates each said proper position at the center of corresponding said low level.

[c0008] 8. The system of claim 1, wherein said extractor locates

each said proper position at a safety region around the center of corresponding said low level.

[c0009] 9. The system of claim 1, wherein said extractor locates each said proper position at a safety region inside corresponding said low level.

[c0010] 10. The system of claim 1, wherein said amender is a combination of the parts chosen from the group consisting of the following: frequency multiplier, frequency divider, mixer that receive said clock and at least one higher frequency clock, and the combination thereof.